

CLAIMS

1. A method for optimizing cell available (CLAV) status polling, the method comprising the steps of:

determining a first connection speed having a first associated set of PHY
5 addresses and a second connection speed having a second associated set of PHY
addresses;

arbitrating status polling based at least in part on a polling ratio involving the first
connection speed and the second connection speed;

polling the first and second associated set of PHY addresses to determine a CLAV
10 status for each PHY address, according to the polling ratio;

determining whether each PHY address of the first and second connection speed
requires polling; and

re-polling at a connection speed wherein at least one PHY address of the
connection speed requires polling.

15 2. The method of claim 1, wherein the polling ratio is based on a number of
PHY addresses of the first connection speed and a number of PHY addresses of the
second connection speed.

3. The method of claim 1, further comprising the step of:
updating the polling ratio based on a number of PHY addresses of the first
20 connection speed that require polling and a number of PHY addresses of the second
connection speed that require polling.

4. The method of claim 1, wherein the step of determining whether each
PHY address requires polling further comprises the step of:

determining whether the CLAV status is an active CLAV status.

25 5. The method of claim 4, further comprising the step of determining
whether the PHY address with an active CLAV status has been serviced.

6. The method of claim 1, wherein PHY addresses with an active CLAV
status that have not been serviced are not re-polled wherein bandwidth is conserved.

7. The method of claim 1, wherein the polling ratio comprises a plurality of
30 polling ratios.

8. The method of claim 7, wherein the poll ratios include 0/100, 25/75, 50/50, 75/25, 100/0 wherein each poll ratio represents the first connection speed to the second connection speed.

9. The method of claim 1, wherein one or both of the first connection speed
5 and the second connection speed are software configurable.

10. The method of claim 1, wherein the first connection speed is a fast connection speed and the second connection speed is a slow connection speed.

11. A system for optimizing cell available (CLAV) status polling, the system comprising:

10 a determining connection speed module for determining a first connection speed having a first associated set of PHY addresses and a second connection speed having a second associated set of PHY addresses;

an arbitrating status polling module for arbitrating status polling based at least in part on a polling ratio involving the first connection speed and the second connection
15 speed;

a polling module for polling the first and second associated set of PHY addresses to determine a CLAV status for each PHY address, according to the polling ratio;

a determining PHY address status module for determining whether each PHY address of the first and second connection speed requires polling; and

20 a re-polling module for re-polling at a connection speed wherein at least one PHY address of the connection speed requires polling.

12. The system of claim 11, wherein the polling ratio is based on a number of PHY addresses of the first connection speed and a number of PHY addresses of the second connection speed.

25 13. The system of claim 11, further comprising:

a poll ratio module for updating the polling ratio based on a number of PHY addresses of the first connection speed that require polling and a number of PHY addresses of the second connection speed that require polling.

14. The system of claim 11, wherein the determining PHY address status
30 module further determines whether the CLAV status is an active CLAV status.

15. The system of claim 14, wherein the determining PHY address status module further determines whether the PHY address with an active CLAV status has been serviced.

16. The system of claim 11, wherein PHY addresses with an active CLAV status that have not been serviced are not re-pollled wherein bandwidth is conserved.

17. The system of claim 11, wherein the polling ratio comprises a plurality of polling ratios.

18. The system of claim 17, wherein the poll ratios include 0/100, 25/75, 50/50, 75/25, 100/0 wherein each poll ratio represents the first connection speed to the second connection speed.

19. The system of claim 11, wherein one or both of the first connection speed and the second connection speed are software configurable.

20. The system of claim 11, wherein the first connection speed is a fast connection speed and the second connection speed is a slow connection speed.

21. A computer readable medium, the computer readable medium comprising a set of instructions for optimizing cell available (CLAV) status polling and being adapted to manipulate a processor to:

determine a first connection speed having a first associated set of PHY addresses and a second connection speed having a second associated set of PHY addresses;

20 arbitrate status polling based at least in part on a polling ratio involving the first connection speed and the second connection speed;

poll the first and second associated set of PHY addresses to determine a CLAV status for each PHY address, according to the polling ratio;

25 determine whether each PHY address of the first and second connection speed requires polling; and

re-poll at a connection speed wherein at least one PHY address of the connection speed requires polling.